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Innovations in Managing Western Water: New Approaches for Balancing Environmental, Social and Economic Outcomes (Martz Summer Conference, June 11-12)

2015

6-12-2015

SLIDES: Never Let a Crisis Go to Waste

Lester Snow

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Never Let a Crisis Go to Waste

Martz Conference June 12, 2015



An initiative of Resources Legacy Fund

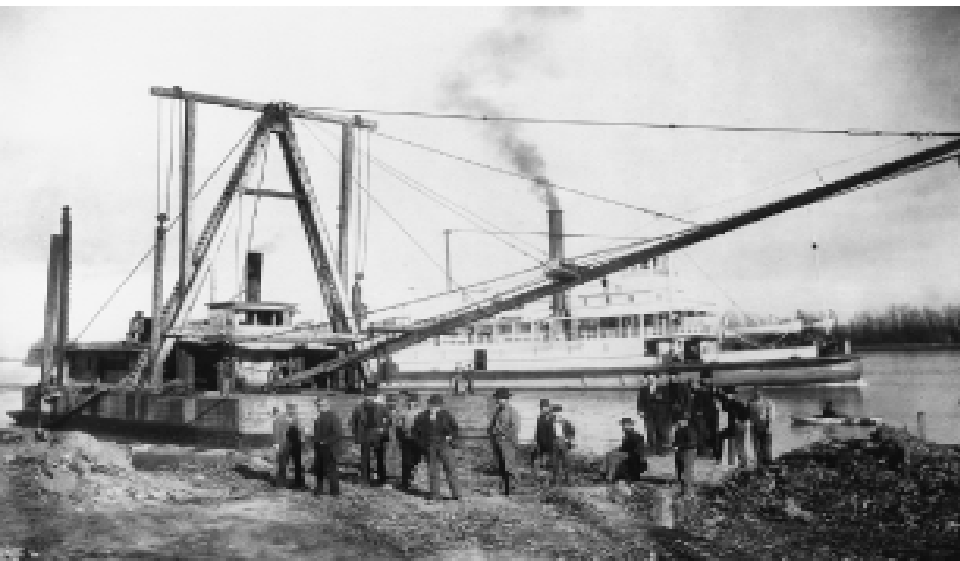
Discussion Outline

- Historical Water Development
- Current Challenges & Opportunities
- Groundwater and Beyond

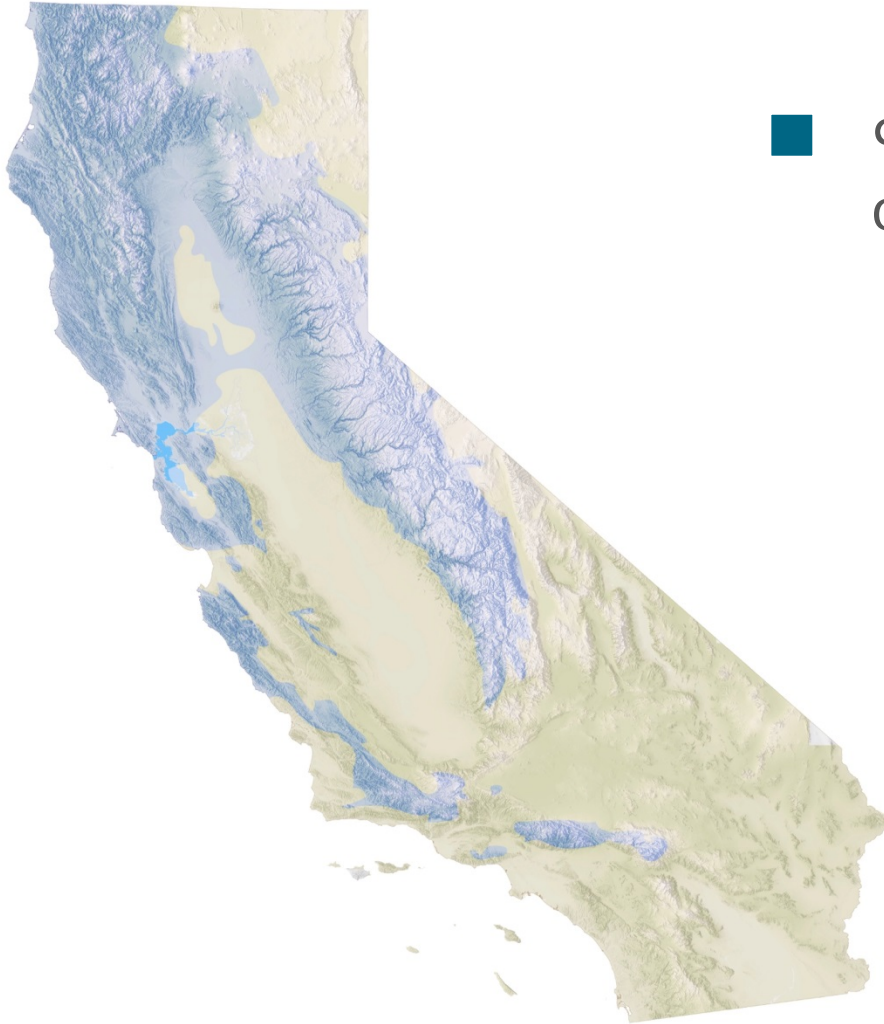


Historical Context

- Swamp and Overflow Act
- Central Valley Flood System
- Water System Development



California Water Systems



- 90% of annual runoff occurs in 40% of the state

California Water Systems



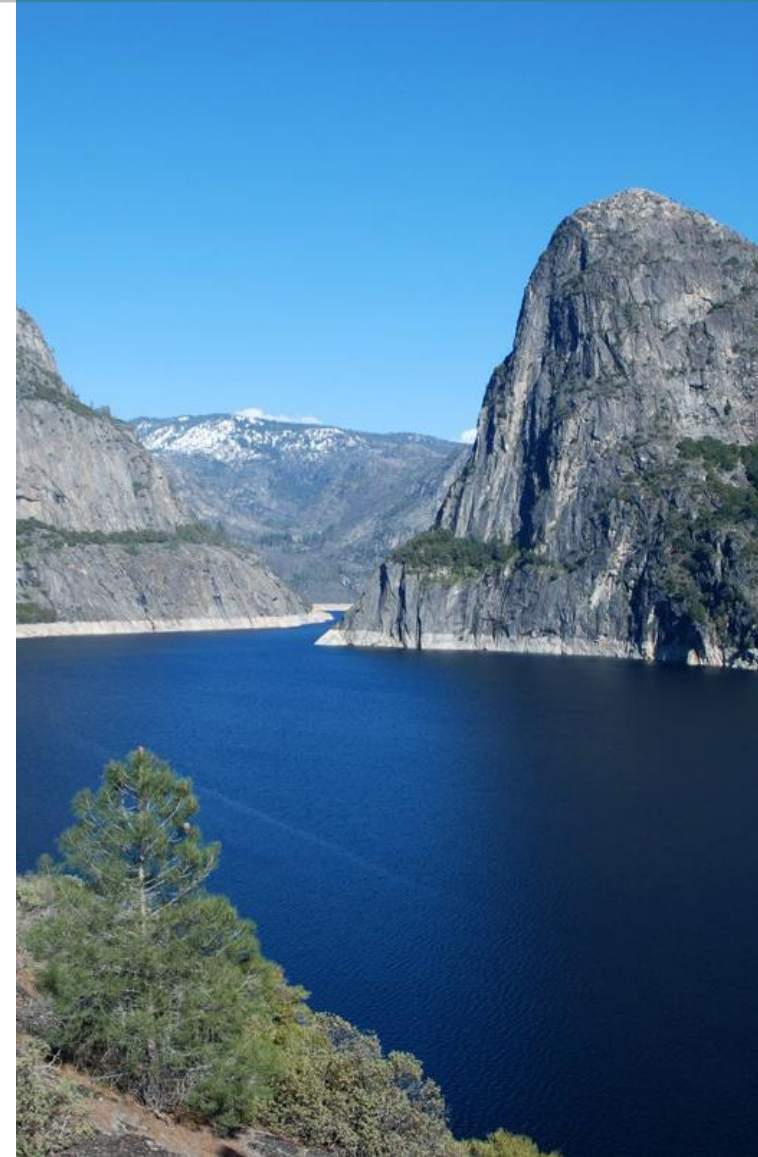
Los Angeles Aqueduct (1908)



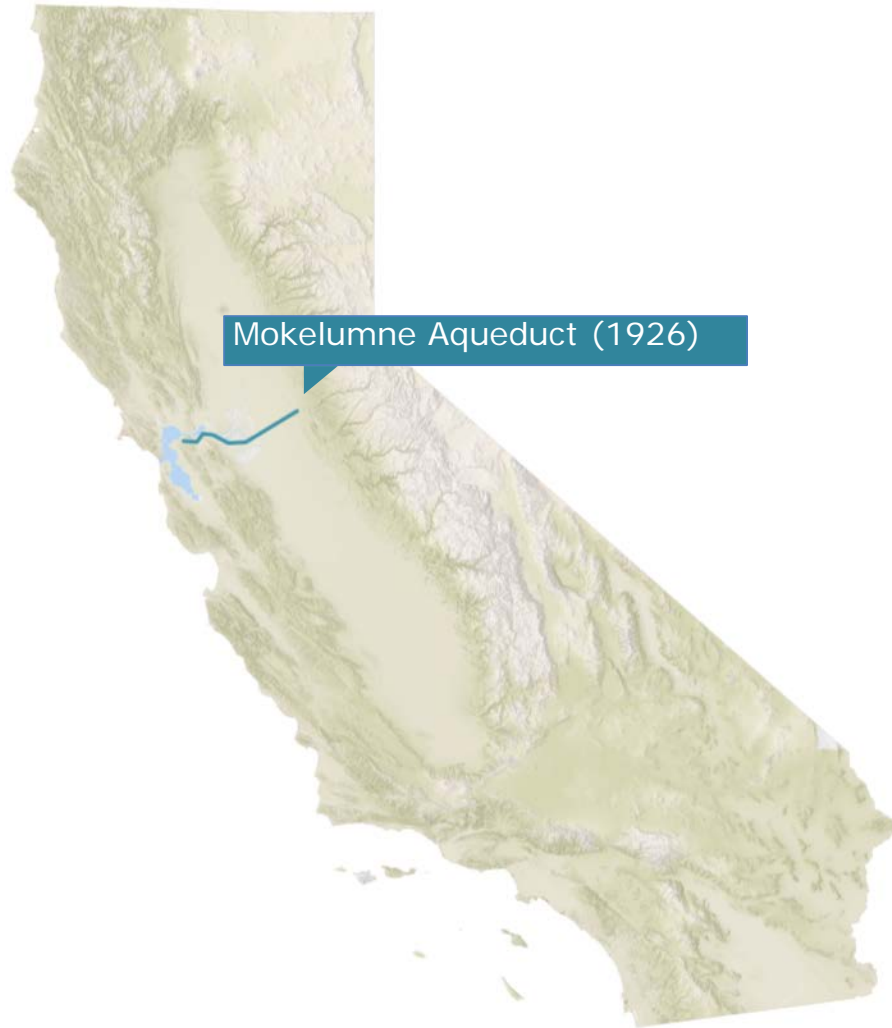
California Water Systems



Hetch Hetchy Aqueduct (1913)



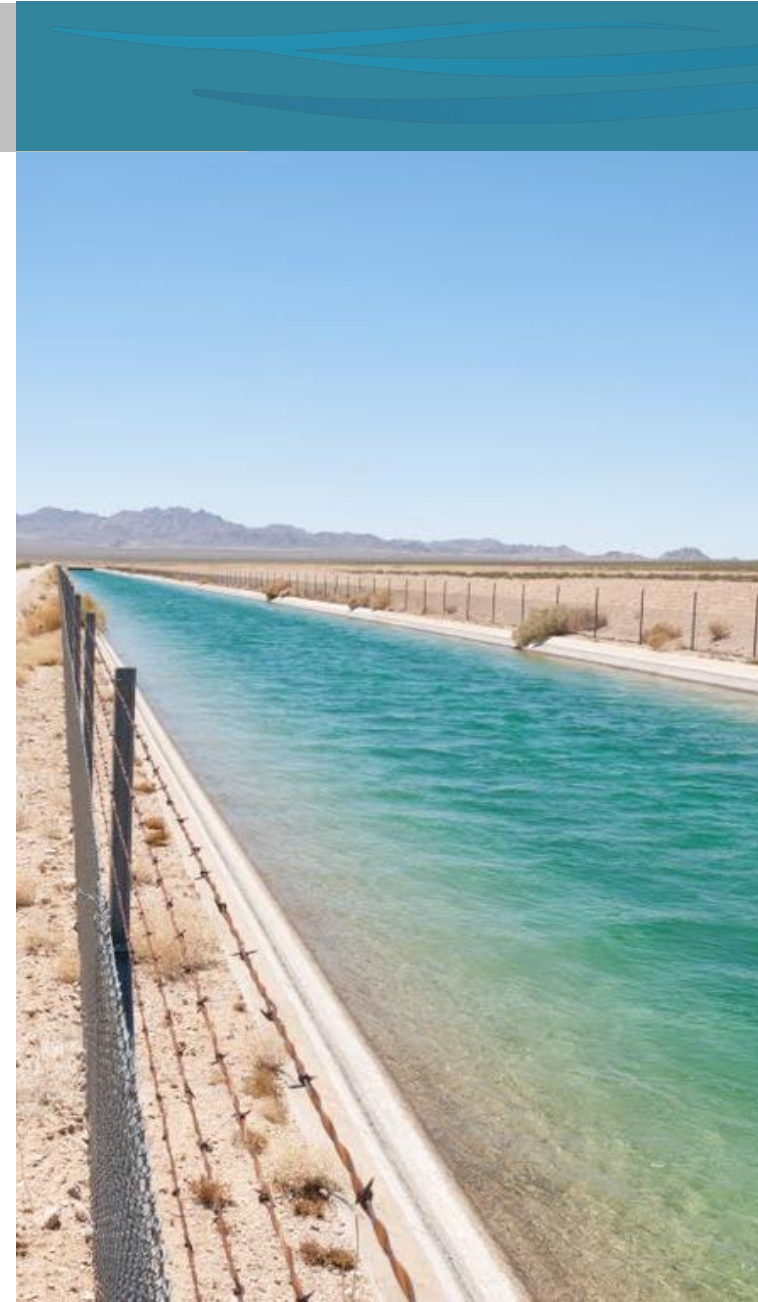
California Water Systems



California Water Systems



Colorado River Aqueduct (1933)



California Water Systems



California Water Systems



California Water Systems



- Fueled California economy
- All had unintended consequences
- All are less reliable today

Water System Challenges

- Increasing Population
- Aging infrastructure
- Groundwater Overdraft
- Degraded ecosystems
- Increasing conflict
- Uncertainty due to climate change



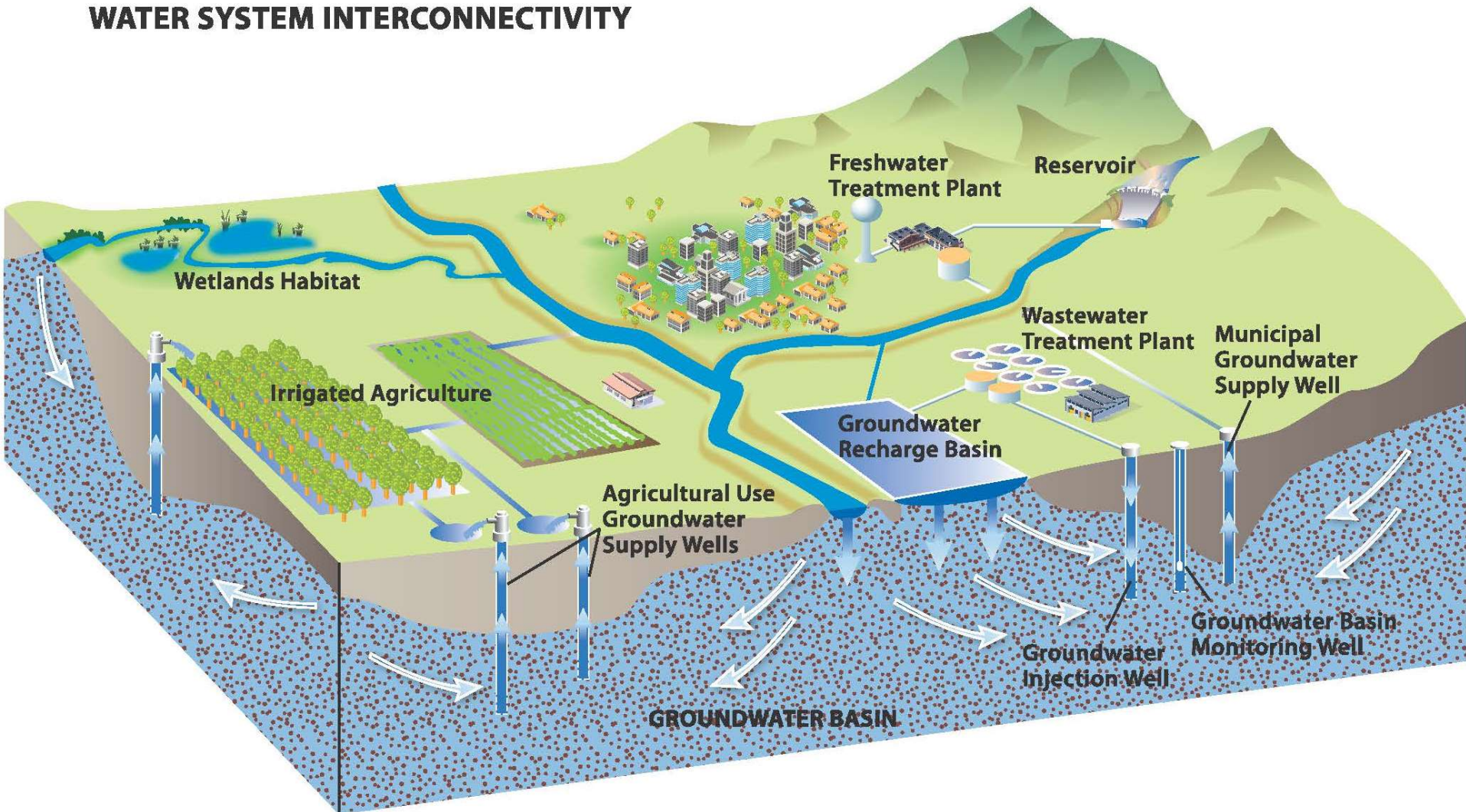
Addressing the Challenge

- Achieving sustainable water management through:
 - Integrated Water Management
 - Groundwater Management
 - Urban Water Use Efficiency
 - Stormwater Capture
 - Recycled Water
 - Reservoir Reoperation
 - Flood Management

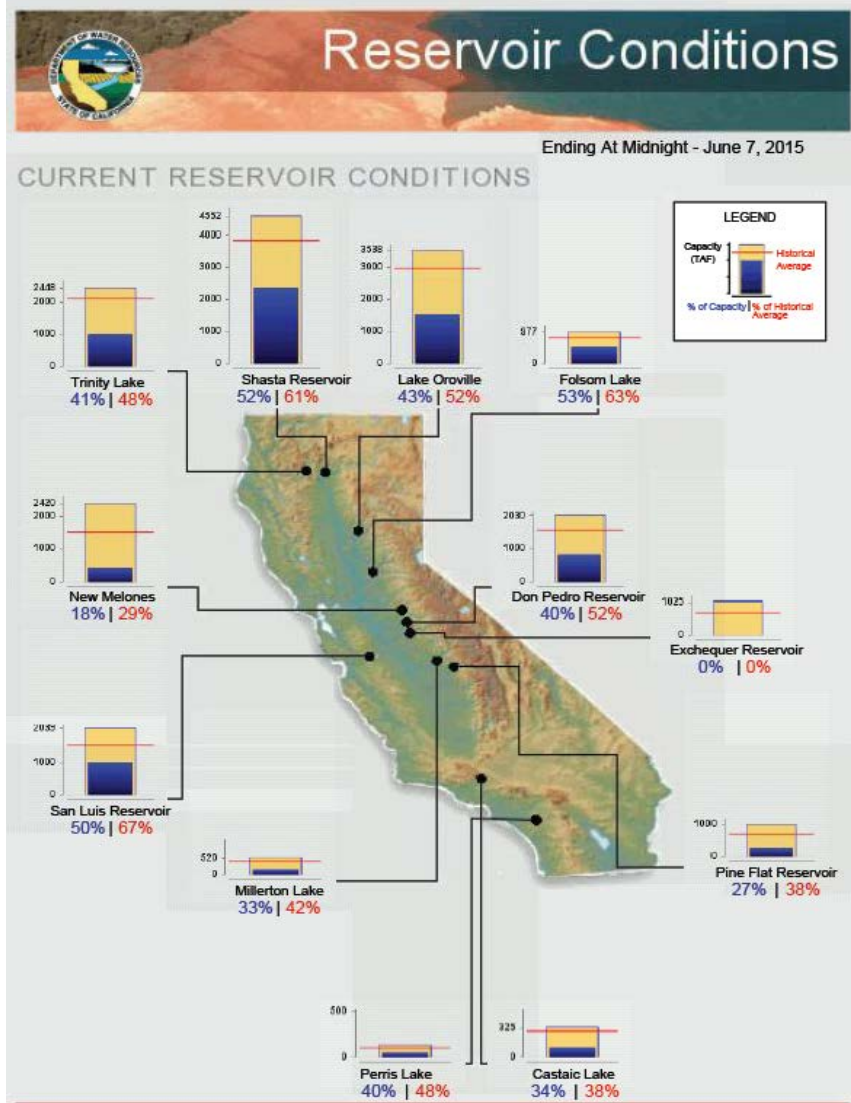


Integrated Water Management

WATER SYSTEM INTERCONNECTIVITY

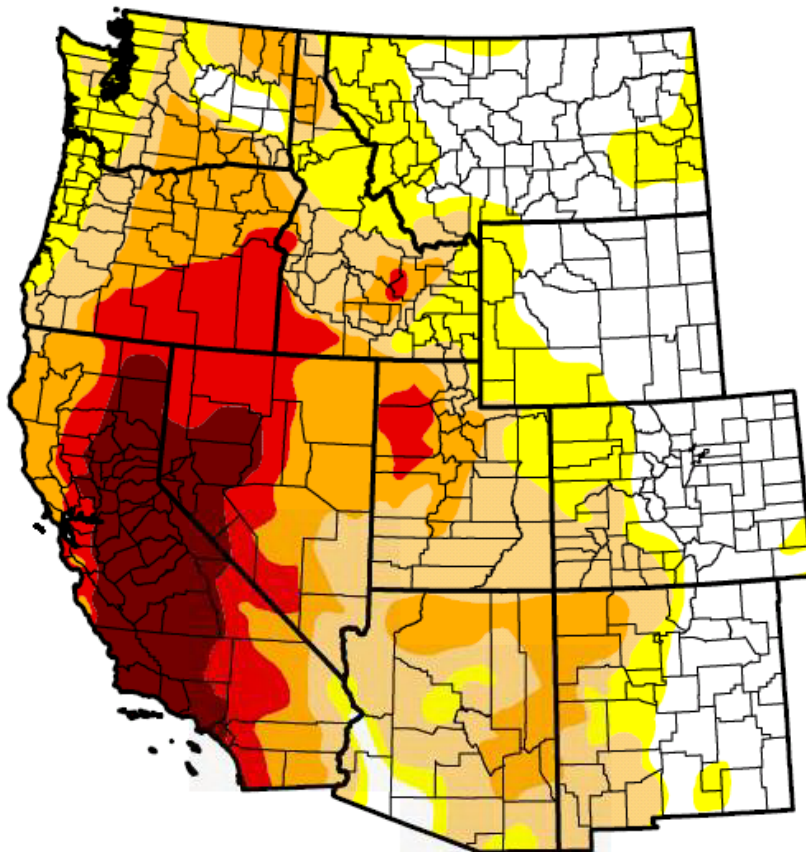


California Water Systems



California Water Systems

U.S. Drought Monitor West



June 2, 2015

(Released Thursday, Jun. 4, 2015)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	25.23	74.77	56.98	35.92	17.99	7.94
Last Week 5/26/2015	25.37	74.63	57.03	35.92	17.59	7.94
3 Months Ago 3/3/2015	29.95	70.05	59.79	29.48	16.62	7.04
Start of Calendar Year 12/30/2014	34.76	65.24	54.46	33.50	18.68	5.40
Start of Water Year 9/30/2014	31.48	68.52	55.57	35.65	19.95	8.90
One Year Ago 6/3/2014	31.84	68.16	60.32	47.21	20.20	4.31

Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

David Miskus

NOAA/NWS/NCEP/CPC

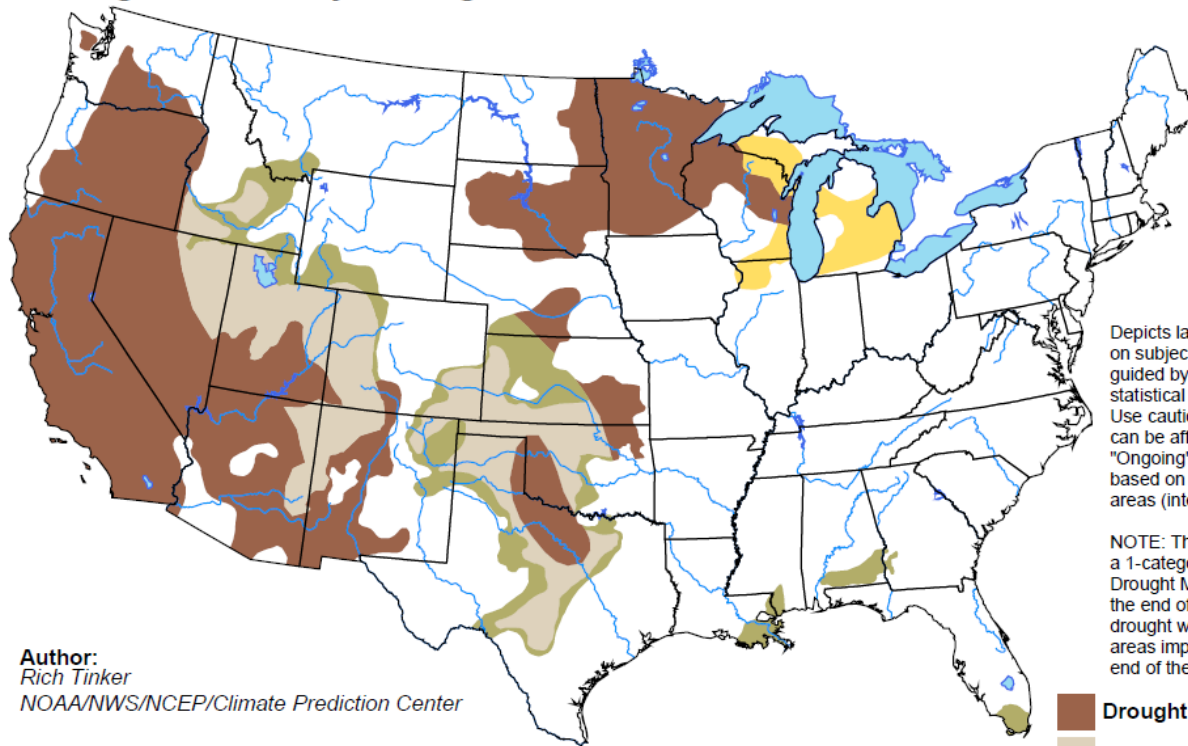


<http://droughtmonitor.unl.edu/>

Drought Forecast

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for April 16 - July 31, 2015
Released April 16, 2015



Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists/intensifies
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/hHTe>

Half Dome March 19, 2011



Half Dome March 19, 2012



Half Dome March 19, 2013



Half Dome March 19, 2014



Half Dome March 19, 2015



Groundwater in Context

- 40% of supply in an average year; 60% in dry
- Critical part of integrated management
- Flexible source for storage and use



Groundwater in Context

- Several decades of increasing use
 - Reduction in surface supplies
 - Hardening of demand
- Increasing landowner conflicts



Problems With Overdraft

- Subsidence threatens infrastructure
- Reduced water for species
- Reduced surface supplies
- Increased drilling/pumping costs
- Increased costs for taxpayers, business, farmers



CWF Groundwater Efforts

- Develop and Protect Leadership
- Reframe the Debate/Compelling Information
- New Coalitions
- Policy Reform

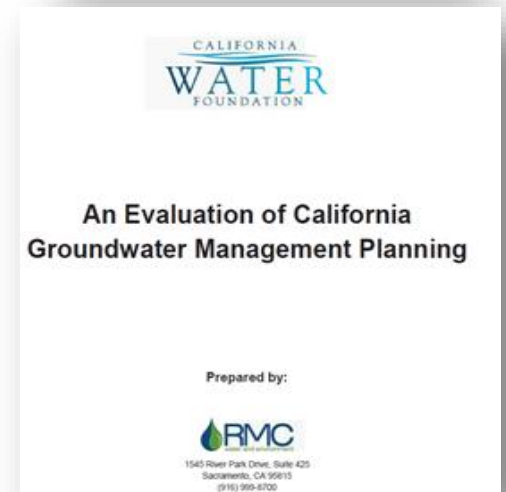
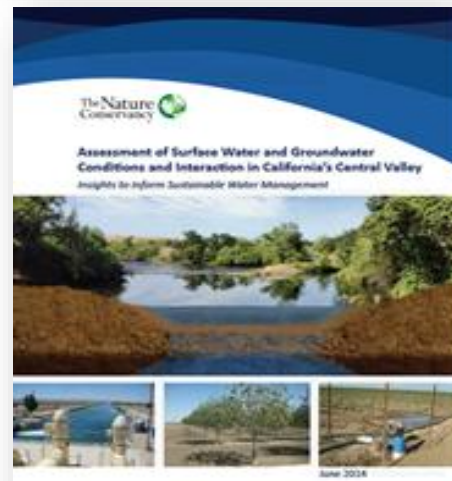
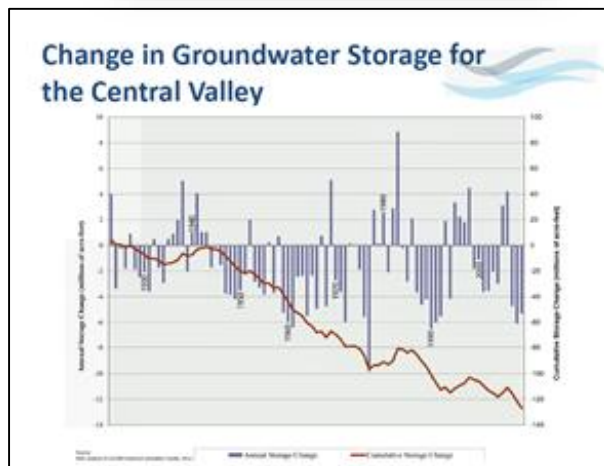
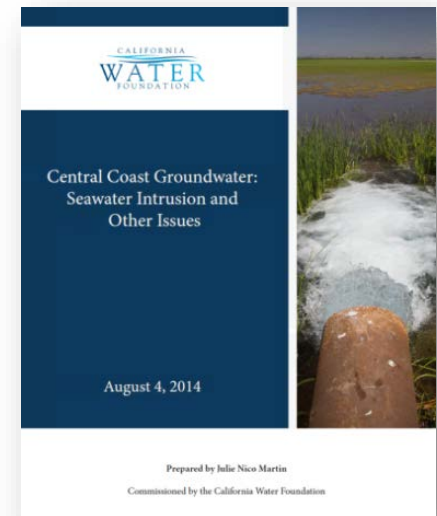
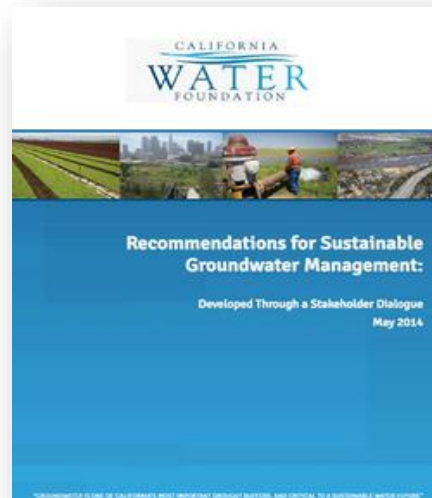


Reframing the Debate

EVERYONE'S TALKING ABOUT WATER.
FOR ONCE, THEY'RE SAYING THE SAME THING



Compelling Information



Coalitions & Support



Los Angeles Area
Chamber of Commerce

Media Statistics:

Editorials and Op-eds

- **18 positive editorials statewide**
 - 4 supporting groundwater reform
 - 12 supporting specific legislation
 - 2 urging Governor to sign bills
 - 4 million print impressions, 31 million online
- **13 positive opinion pieces published**
 - 5 by Groundwater Voices
 - 4 by Lester Snow
 - 4 by other supportive orgs, individuals
 - 750k print impressions, 1 million online



Los Angeles Times

THE WALL STREET JOURNAL.
WSJ

The Fresno Bee



Daily News
LOS ANGELES

THE SACRAMENTO
BEE



San Francisco Chronicle

New nameplate for an old paper

San Jose Mercury News

MERCED  SUN-STAR

Media Statistics:

News Articles

- More than 70 articles mentioned California Water Foundation efforts to reform groundwater policy
- More than 130 positive articles posted to Groundwater Voices website
- More than 200 million print and online impressions garnered from earned media efforts



Groundwater Policy

- 1961 Legislative Report
- 1978 Commission Report
- ACWA 2011 Report
- ACWA 2014 Recommendations
- CWF Steering Committee Outreach
- CWF Recommendations



Groundwater in Context (Cont.)

- Several decades of increasing use
 - Reduction in surface supplies
 - Hardening of demand
- Increasing landowner conflicts



■ Definitions

■ Local Empowerment

- Jurisdiction and Basin Priority
(exempts adjudicated basins)
- Plan Requirements
- Authorities

■ State Role

- Assistance
- Plan Review
- Back-Stop

Time Frame for Success

Time	Action
6/30/2017	Formation of GSAs
1/31/2020	Completion of GSPs in critically overdrafted basins
1/31/2022	Completion of GSPs in all other basins
20-year implementation period	Implementation of GSPs under local management

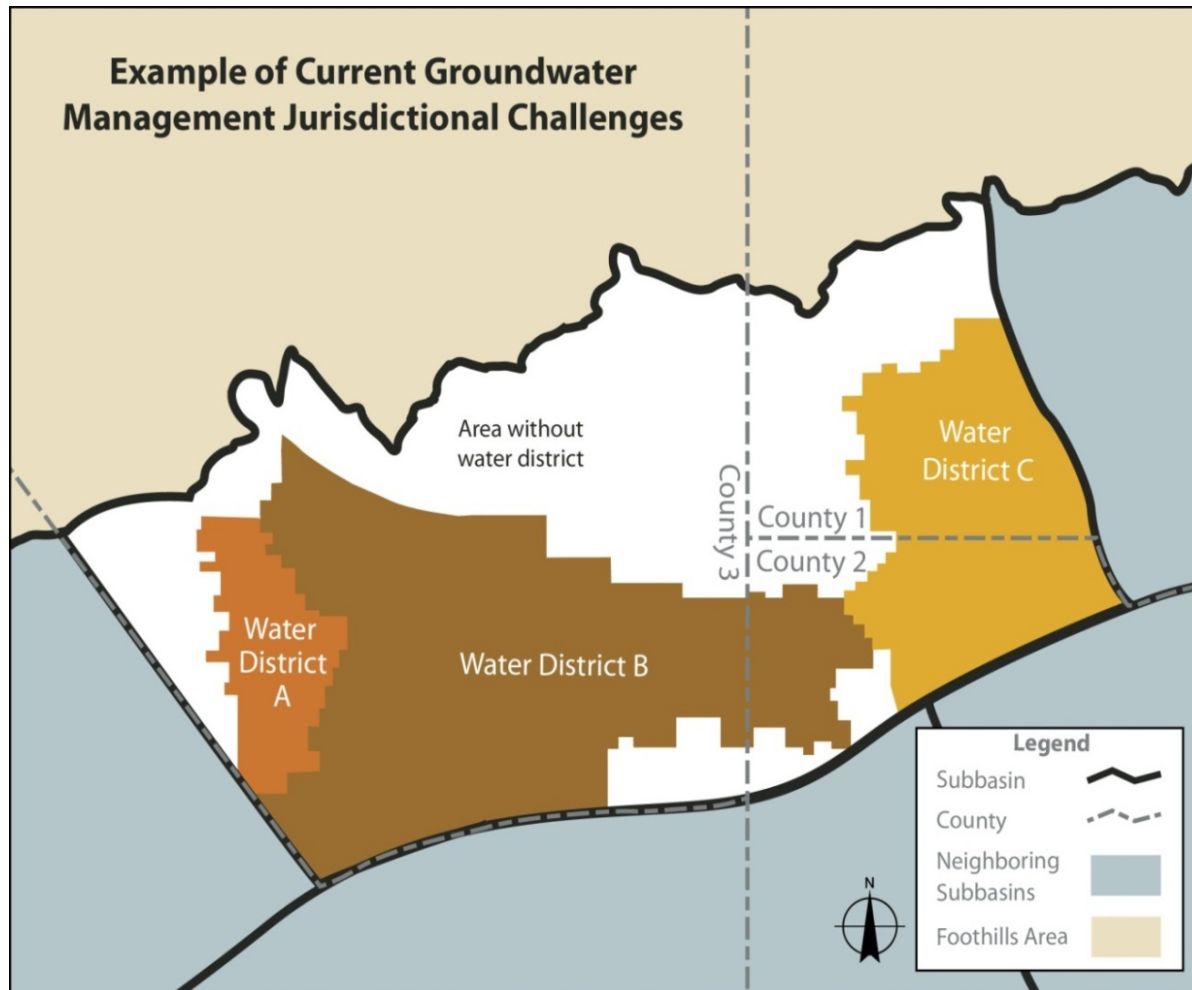
Taking these actions shields local managers from state intervention

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Taking these actions shields local managers from state intervention

Jurisdiction Formation



SGMA Implementation

- Early Adopters
- “Clean Up” Legislation
- State Regulations
- Bond Funding
- Drought Pressure and Conflict



Integrated Water Management

WATER SYSTEM INTERCONNECTIVITY

